

# ABSTRACT

A measuring system includes a measuring device, another device  
and a device configured to transmit data enabling bits of data  
to be transmitted between the measuring device and the other  
5 device. The measuring device also includes a signal  
monitoring circuit and a switch element. The switch element  
is electrically contacted to a test potential source. The  
test potential source is in contact with the signal monitoring  
circuit according to a switch element state. The signal  
10 monitoring circuit is also in contact with the device for  
transmitting data. A method provides for functional  
monitoring of such a measuring system in a monitoring mode  
when a test potential is applied.